

## Intervention: Educational interventions for asthma in children

Finding: Insufficient evidence to determine effectiveness

### Potential partners to undertake the intervention:

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| <input type="checkbox"/> Nonprofits or local coalitions                              | <input type="checkbox"/> Businesses or labor organizations |
| <input type="checkbox"/> Schools or universities                                     | <input type="checkbox"/> Media                             |
| <input checked="" type="checkbox"/> Health care providers                            | <input type="checkbox"/> Local public health departments   |
| <input type="checkbox"/> State public health departments                             | <input type="checkbox"/> Policymakers                      |
| <input checked="" type="checkbox"/> Hospitals, clinics or managed care organizations | <input type="checkbox"/> Other:                            |

### Background on the intervention:

It is not known if self-management education programs for children with asthma improve outcomes.

### Findings from the systematic reviews:

Forty-five trials were reviewed that studied asthma self-management education programs in children and adolescents aged 2 to 18 years. Thirty-two studies met all the review criteria and are included in this review.

Asthma education programs were associated with moderate improvements in measures of airflow and self-efficacy. Similarly, education programs were associated with modest reductions in school absences (days), activity restrictions (days), and emergency room visits. There were mixed results on nights disturbed by asthma. Effects of education were greater for most outcomes in moderate-severe cases, compared with mild-moderate asthma, and among studies using peak flow instead of symptom-based strategies. Effects were evident in the first six months, but for morbidity and health care utilization, effects were more evident by 12 months.

Asthma self-management education programs for children have a very wide range of outcome measures. Self-management education directed toward prevention and control should be made a part of routine asthma care. This can help improve lung function and feelings of self-efficacy for children, and also reduce school absences, days of restricted activity, and emergency room visits. Rare and serious events such as hospitalization may be beyond the reach of these types of education programs.

### Limitations/Comments:

Conclusions about the relative effectiveness of the various components of these programs are limited by a lack of direct comparisons. Future trials of asthma education programs should focus on morbidity and functional status outcomes, including quality of life, and involve direct comparisons of the different components of the interventions.

### Reference:

Wolf FM, Guevara JP, Grum CM, Clark NM, Cates CJ. Educational interventions for asthma in children. *The Cochrane Database of Systematic Reviews* 2002, Issue 4. Art. No.: CD000326. DOI: 10.1002/14651858.CD000326.